



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,947	03/13/2008	Eiju Suzuki	Q92273	8599
23373 7590 11/28/2011 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER FISCHER, JUSTIN R	
			ART UNIT 1747	PAPER NUMBER
			NOTIFICATION DATE 11/28/2011	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com  
sughrue@sughrue.com  
PPROCESSING@SUGHRUE.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,947	<b>Applicant(s)</b> SUZUKI ET AL.	
	<b>Examiner</b> JUSTIN FISCHER	<b>Art Unit</b> 1747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 5) ☒ Claim(s) 1,5,6 and 10-14 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1,5,6 and 10-14 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, 6, and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Imamura (US 3,913,652, of record).

Imamura teaches a tire construction including an end cover rubber, wherein said rubber preferably includes natural rubber and synthetic cis1,4 polyisoprene (Column 2, Lines 27+). The reference further teaches (a) first and second embodiments having 20 phr and 50 phr, respectively, of cis 1,4 polyisoprene.(end points are recognized as express disclosures) and (b) the use of cis 1,4 polyisoprene having a cis 1,4 content of at least 95 percent and a viscosity of at least 40 (Column 2, Lines 22+). Thus, Imamura is seen to anticipate the claims with respect to each of these limitations. It is emphasized that the disclosed range of Imamura between 95 and 100 percent is extremely small and thus, the reference is seen to fairly suggest embodiments having any cis 1,4 content between 95 and 100 percent (claimed subject matter is disclosed by Imamura with sufficient specificity to constitute an anticipation under statute- see MPEP 2131.02).

With respect to claims 5 and 6, Imamura includes a plurality of examples containing 50 phr of carbon black (Table 1- Columns 3 and 4).

Regarding claims 11 and 12, the composition of Imamura is disclosed as being usable with carcass plies, belt plies, and chafer plies (Column 3, Lines 45+). In such an instance, the end cover rubber can be viewed as being part of the respective tire component or alternatively, can be viewed as "being applied to" a tire component.

As to claims 13 and 14, cis 1,4 contents of 99.6 percent and 99.9 percent are within the extremely narrow range of 95-100 percent disclosed by the reference.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 5, 6, 10, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendrik (EP 893,281, of record).

Hendrik teaches a tire tread composition comprising 100 phr of natural rubber and synthetic cis 1,4 polyisoprene and 45-80 phr of reinforcing filler (silica and carbon black) (Abstract). The reference further teaches that said cis 1,4 polyisoprene content is greater than 90 percent. In this instance, the disclosed range of 90-100 percent is extremely small and thus, the reference is seen to fairly suggest embodiments having any cis 1,4 content between 90 and 100 percent. It is emphasized that Hendrik is seen to anticipate the claim with respect to the cis 1,4 content (separate from the claim as a whole).

Hendrik, however, is silent with respect to (a) the respective loadings of the natural rubber and the synthetic cis 1,4 polyisoprene and (b) the Mooney viscosity of said synthetic cis 1,4 polyisoprene.

Regarding (a), one would have found it obvious to use a wide variety of loadings given the general disclosure of Hendrik, including those having a synthetic cis 1,4 loading between 10 and 60 percent. It is emphasized that such a range encompasses half of the possible loadings and applicant has not provided a conclusive showing of unexpected results for the claimed loadings. In particular, a comparison between Example 3 and Comparative Example B in Table A filed on October 8, 2009 suggests almost the same tire properties. Also, a comparison between Example 2 and Comparative Example B demonstrates nearly a 17% improvement in processability for the Comparative Example and only an extremely small decrease in wear resistance and durability (unclear how such a showing demonstrates a criticality for loadings less than 60 percent).

With respect to (b), the claimed viscosity is consistent with those associated with synthetic cis 1,4 polyisoprene in the tire industry.

As to claims 13 and 14, cis 1,4 contents of 99.6 percent and 99.9 percent are within the extremely narrow range of 90-100 percent disclosed by the reference.

### ***Response to Arguments***

3. Applicant's arguments filed November 10, 2011 have been fully considered but they are not persuasive.

Applicant argues that Imamura fails to disclose or suggest a synthetic polyisoprene rubber having a cis 1,4 bond content of not less than 99.0% and a 3,4-bond content of not more than 0.5%. As detailed above, Imamura teaches a cis 1,4 bond content of not more than 0.5%. As detailed above, Imamura teaches a cis 1,4 range between 95 and 100% and such a disclosure is seen to constitute "sufficient specificity" in terms of anticipation (see MPEP 2131.03). In essence, the disclosure of such an extremely narrow and specific range by Imamura expressly teaches embodiments having any cis 1,4 content between 95 and 100%. It is emphasized that the any embodiment having a cis 1,4 content greater than 99.5% necessarily has a 3,4 content less than 0.5%.

With respect to Hendrik, applicant argues that the reference fails to disclose or suggest a synthetic polyisoprene rubber having a cis 1,4 content of not less than 99.0% and a 3,4 bond content of not more than 0.5%. In an analogous manner to the response detailed in the previous paragraph, a disclosure between 90 and 100% is seen to constitute "sufficient specificity" in terms of anticipation.

Applicant further contends that Table 1 demonstrates unexpected results. It is emphasized, however, that Hendrik is seen to anticipate the claimed 1,4 bond content as detailed above- the disclosure of a narrow and specific range between 90 and 100 % expressly teaches embodiments having 1,4 bond contents equal to or greater than 99.5% and in accordance to the claimed invention. Thus, Comparative Examples having 1,4 bond contents outside of the claimed invention do not constitute the closest prior art of record.

### ***Conclusion***

Art Unit: 1747

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **JUSTIN FISCHER** whose telephone number is **(571)272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1747

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Justin Fischer  
/Justin R Fischer/  
Primary Examiner, Art Unit 1747  
November 21, 2011